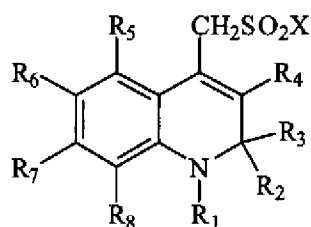
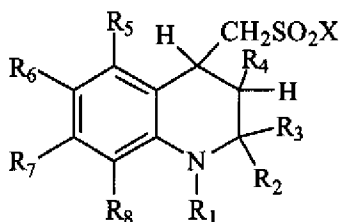


**AMENDMENTS TO THE CLAIMS WITH MARKINGS TO SHOW CHANGES  
MADE, AND LISTING OF ALL CLAIMS WITH PROPER IDENTIFIERS**

1. (Withdrawn) A process for the production of dihydroquinoline compounds of the general formula Ia or of tetrahydroquinoline compounds of the general formula Ib



Ia



Ib

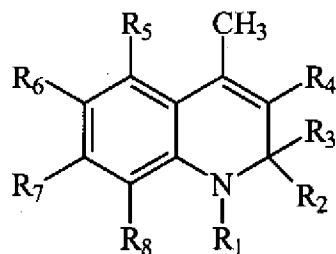
in which  $R_1$  denotes hydrogen or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents,

$R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$  and  $R_8$  on each occurrence and independently of one another denote hydrogen, halogen, a hydroxy, amino, sulfo, carboxy or aldehyde group or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents, or the residues  $R_1$  and  $R_8$  together form a ring system and

X denotes OH, halogen,  $-O-R_9$ ,  $-S-R_{10}$  or  $-NR_{11}R_{12}$  where  $R_9$ ,  $R_{10}$ ,  $R_{11}$  and  $R_{12}$  independently of one another denote hydrogen or a C1 to C20 hydrocarbon residue which can optionally contain one or more heteroatoms or/and one or more substituents,

wherein

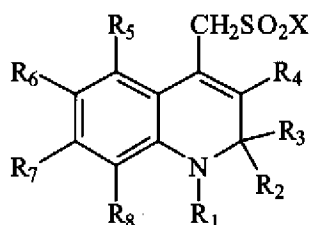
the corresponding compounds I'a



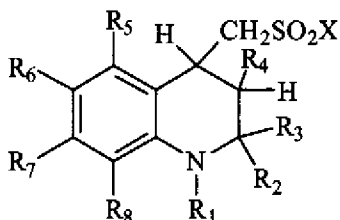
I'a

are sulfonated to form Ia (X = OH) and optionally converted by hydrogenation into Ib (X = OH).

2. (Withdrawn) The process as claimed in claim 1, wherein the sulfonation is carried out by means of concentrated sulfuric acid.
3. (Withdrawn) The process as claimed in claim 1, wherein the sulfonic acid group formed in the sulfonation is derivatized.
4. (Withdrawn) The process as claimed in claim 3, wherein the sulfonic acid group is converted into a sulfochloride.
5. (Withdrawn) The process as claimed in claim 3, wherein the sulfochloride group is reacted with a primary or secondary amine to form a sulfonamide.
6. (Withdrawn) A dihydroquinoline compound of the general formula Ia or a tetrahydroquinoline compound of the general formula Ib



Ia



Ib

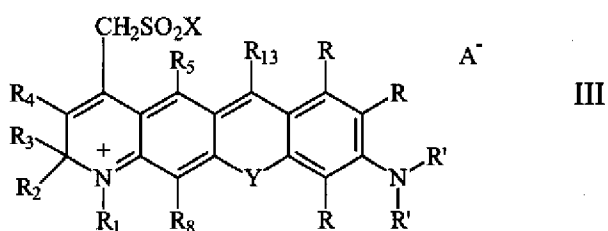
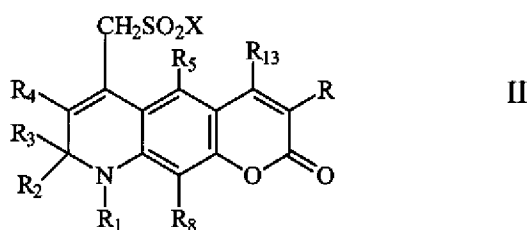
in which  $R_1$  denotes hydrogen or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents,

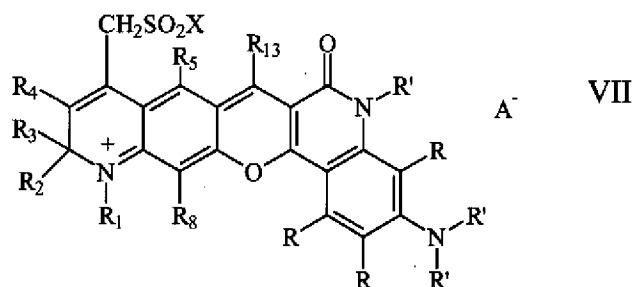
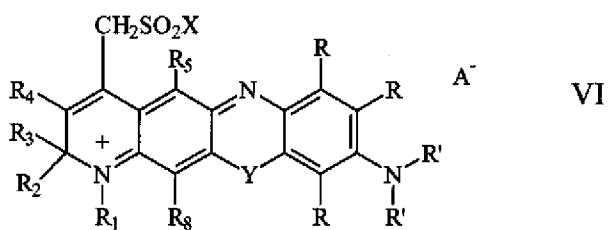
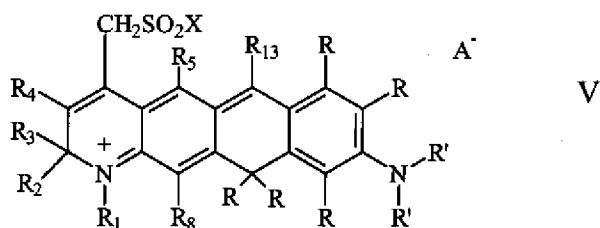
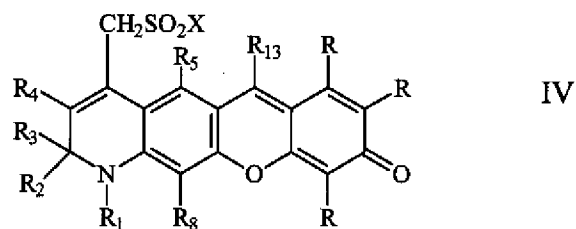
$R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$  and  $R_8$  on each occurrence and independently of one another denote hydrogen, halogen, a hydroxy, amino, sulfo, carboxy or aldehyde group or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents, or the residues  $R_1$  and  $R_8$  together form a ring system and

X denotes OH, halogen,  $-O-R_9$ ,  $-S-R_{10}$  or  $-NR_{11}R_{12}$  where  $R_9$ ,  $R_{10}$ ,  $R_{11}$  and  $R_{12}$  each independently of one another denote hydrogen or a C1 to C20 hydrocarbon residue which can optionally contain one or more heteroatoms or/and one or more substituents, in particular  $-SO_3H$ ,  $-PO_3H_2$  and  $-COOH$ .

7. (Withdrawn) The compound as claimed in claim 6, wherein  $R_1$  represents an aryl or alkyl residue and in particular a C5 to C15 aryl or a C1 to C20 alkyl residue,  $R_2$  and  $R_3$  are methyl and  $R_4$  denotes hydrogen.

8. (Withdrawn) The compound as claimed in claim 6, wherein  $R_7$  represents a hydroxy or methoxy residue.
9. (Withdrawn) The compound as claimed in claim 6 wherein  $R_6$  represents a nitroso group.
10. (Withdrawn) The compound as claimed in claim 6 wherein  $R_6$  represents a formyl or a hydroxymethyl group.
11. (Withdrawn) The compound as claimed in claim 6, wherein X denotes halogen and in particular Cl.
12. (Withdrawn) The compound as claimed in claim 6, wherein X represents the residue  $-NR_{11}R_{12}$
13. (Withdrawn) A process for the production of dyes of the general formulae II to VII containing  $-SO_2X$





in which  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$  and  $R_8$  are defined as in claims 1 to 12,  $R$  on each occurrence can be the same or different and is defined as for  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$  and  $R_8$  and  $R'$  on each occurrence and independently of one another denotes hydrogen or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents, or the residues  $R$  and  $R'$  together form a ring system which can contain one or more double bonds,

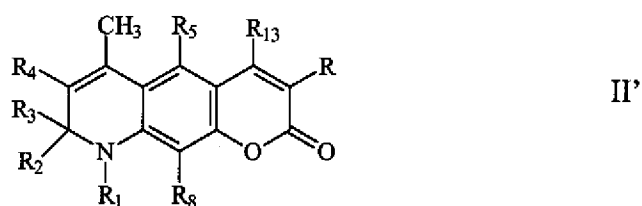
$R_{13}$  on each occurrence and independently of one another denotes hydrogen or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents,

where  $R_{13}$  in particular represents hydrogen, aryl, carboxyphenyl, alkyl, perfluoroalkyl, cycloalkyl, pyridyl or carboxypyridyl,

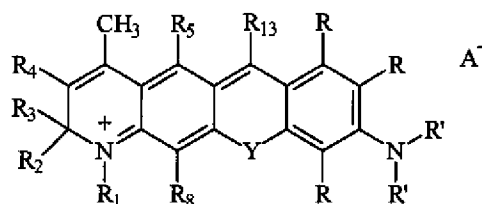
X denotes OH, halogen,  $-O-R_9$ ,  $-S-R_{10}$  or  $-NR_{11}R_{12}$  where  $R_9$ ,  $R_{10}$ ,  $R_{11}$  and  $R_{12}$  each independently of one another denote hydrogen or a C1 to C20 hydrocarbon residue which can optionally contain one or more heteroatoms or one or more substituents, and

Y in formula III denotes O, S or Se and Y in formula VI denotes O, S or  $C(R)_2$ , wherein

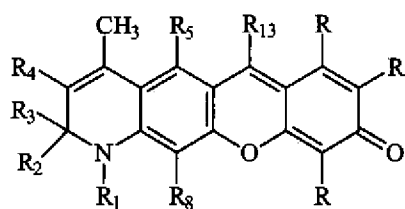
corresponding compounds of formulae II' to VII'



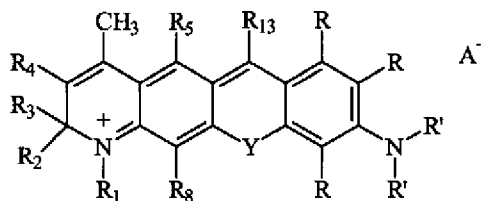
II'



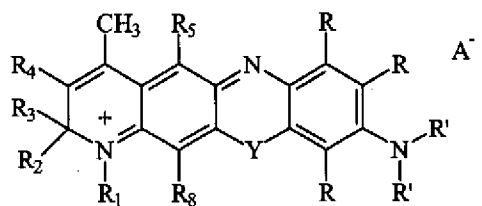
III'



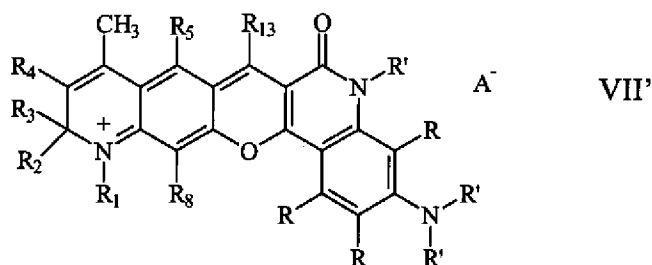
IV'



V'

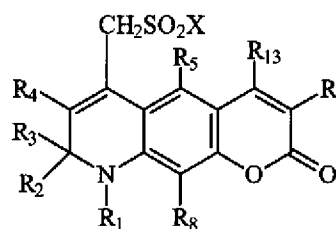


VI'

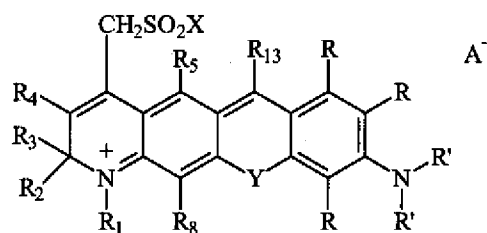


are sulfonated with the proviso that for compounds of formula III in which Y = O and for compounds of formula IV, X does not denote OH.

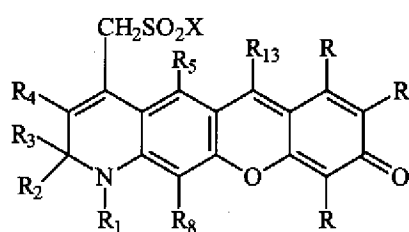
14. (Withdrawn) A method for producing polycyclic dyes comprising using a compound as claimed in claim 6 or a compound obtained by the process as claimed in claim 1.
15. (Withdrawn) The method as claimed in claim 14 wherein the polycyclic dyes are of formulae II to VII.
16. (Withdrawn) A process for the production of polycyclic dyes, wherein compounds which have a dihydroquinoline end group with a 4-methyl group are sulfonated and optionally hydrogenated to form a tetrahydroquinoline with the proviso that the polycyclic dye is not a compound of formula III in which Y = O and X = OH or of formula IV in which X = OH.
17. (Withdrawn) The polycyclic dye produced according to the process as claimed in claim 13.
18. (Currently amended) A polycyclic dye of the general formulae II to VII



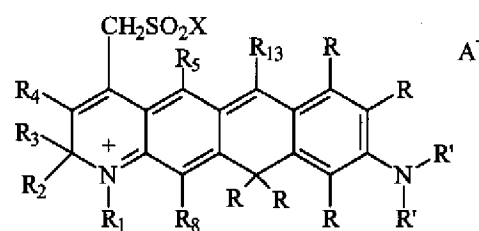
II



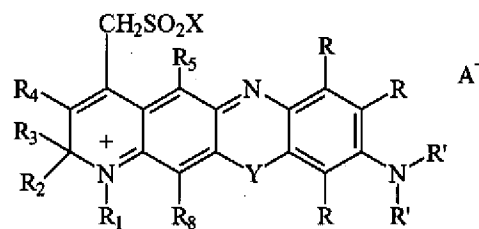
III



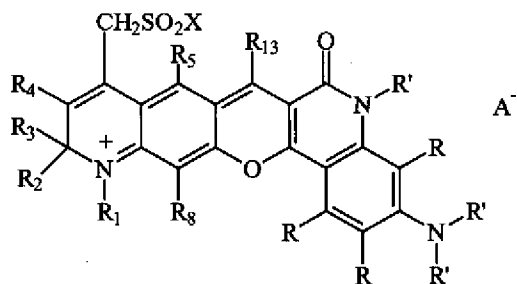
IV



V



VI



VII

in which

R' denotes hydrogen or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and



one or more substituents,

R on each occurrence and independently of one another denotes hydrogen, halogen, a hydroxy, amino, sulfo, carboxy or aldehyde group or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents, or the residues R' and R together form a ring system which can contain one or more multiple bonds,

in which R<sub>1</sub> denotes hydrogen or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, and R<sub>8</sub> on each occurrence and independently of one another denote hydrogen, halogen, a hydroxy, amino, sulfo, carboxy or aldehyde group or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents, or the residues R<sub>1</sub> and R<sub>8</sub> together form a ring system and

R<sub>13</sub> on each occurrence and independently of one another denotes hydrogen or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents, where R<sub>13</sub> in particular represents hydrogen, aryl, carboxyphenyl, alkyl, perfluoroalkyl, cycloalkyl, pyridyl or carboxypyridyl,

X denotes OH, halogen, -O-R<sub>9</sub>, -S-R<sub>10</sub> or -NR<sub>11</sub>R<sub>12</sub> where R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub> and R<sub>12</sub> each independently of one another denote hydrogen or a C1 to C20 hydrocarbon residue which can optionally contain one or more heteroatoms or one or more substituents, and

Y in formula III denotes O, S or Se and Y in formula VI denotes O, S or C(R)<sub>2</sub>,

with the proviso that the dye is not a compound of the general formula III in which Y = O and X = OH or of the general formula IV in which X = OH.

19. (Currently amended) The polycyclic dye as claimed in claim 47 18 wherein X denotes halogen.
20. (Currently amended) The polycyclic dye as claimed in claim 47 18, wherein X represents the residue  $-NR_{11}R_{12}$  ~~as in claim 18~~.
21. (Currently amended) The polycyclic dye as claimed in claim 20, wherein at least one of  $-R_{11}$  ~~or/and~~ and  $R_{12}$  represents an alkyl or aryl residue substituted with  $-COOH$ .
22. (Currently amended) In a method for the detection of an analyte in a sample, the improvement which comprises using a labeled receptor for the analyte, wherein the label is a compound of claim 47 18.
23. (Previously presented) The method as claimed in claim 22, wherein the analyte is a peptide or nucleotide.
24. (Previously presented) The method as claimed in claim 22, wherein the dye is binding to an  $NH_2$  or  $SH$  group of the analyte.
25. (Currently amended) The method of claim 22, wherein the label is a ~~dye as claimed in claim 10 in which the dye is bound by coupling to an amino group of the analyte.~~
26. (Currently amended) The method of claim 22, wherein the label is a ~~dye as claimed in claim 21 and wherein the dye which is activated as an NHS ester is bound by coupling to an amino group of the analyte.~~
27. (Currently amended) The method of claim 22, wherein the label is a ~~dye as claimed in claim 17 or is coupling to another dye.~~

28. (Currently amended) The method of claim ~~22, wherein the label is as claimed in claim~~ 27, wherein the label is coupled via an amino group of the other dye to thus form a FRET pair.
29. (Previously presented) The polycyclic dye as claimed in claim 19, wherein X denotes chlorine.